

STL Knoxville 5815 Middlebrook Pike Knoxville, TN 37921

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ANALYTICAL REPORT

PROJECT NO. 142541

Focus/US Filter Westates 8290

Lot #: H6D030236

William Anderson

STL Knoxville 5815 Middlebrook Pike Knoxville, TN 37921-5947

SEVERN TRENT LABORATORIES, INC.

Kevin S. Woodcock

Project Manager

ANALYTICAL METHODS SUMMARY

H6D030236

 PARAMETER
 ANALYTICAL METHOD

 0023A Airtrains 8290
 SW846 0023A/8290

References:

SW846

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

H6D030236

WO # 5	SAMPLE#	CLIENT SAMPLE ID		AMP IME
H2H1D	001	G-2937/2938-R1-M23A FRONT HALF COMPOSITE TRAIN D	03/28/06	
H2H1F	002	G-2939/2940-R1-M23A BACK HALF COMPOSITE TRAIN D	03/28/06	
H2H1G	003	G-3049/3050-R2-M23A FRONT HALF COMPOSITE TRAIN D	03/29/06	
H2H1J	004	G-3051/3052-R2-M23A BACK HALF COMPOSITE TRAIN D	03/29/06	
H2H1K	005	G-3128/3129-R3-M23A FRONT HALF COMPOSITE TRAIN D	03/30/06	
H2H1L	006	G-3130/3131-R3-M23A BACK HALF COMPOSITE TRAIN D	03/30/06	
H2H1N	007	G-3132/3133-R3-M23A FRONT HALF COMPOSITE BLANK TRAIN D	03/30/06	
H2H1P	800	G-3134/3135-R3-M23A BACK HALF COMPOSITE BLANK TRAIN D	03/30/06	
H2H1Q	009	G-3136-R3-M23A TRAIN D XAD-2 RESIN TUBE TB/RB	03/30/06	
H2H1W	010	A-5379 MEDIA CHECK XAD	03/28/06	
H2H1X	011	A-5381 MEDIA CHECK FILTER	03/28/06	
Month (a)				

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The sample ID on the chain of custody documentation is G-3136-R3-M23A MeCl₂ RB/TB, the sample ID should be G-3136-R3-M23A XAD-2 Resin Tube.

Custody seals were not present upon sample receipt at STL Knoxville; however, samples were hand delivered.

The "Relinquished by" field on the chain of custody documentation did not contain a signature.

Quality Control

Unless otherwise noted, all holding times and QC criteria were met, and the test results shown in this report meet all applicable NELAC requirements.

QC Batch 6107079

All QC criteria were met.

Comment:

All positive 2378-TCDF results at or above the minimum level were confirmed on a DB-225 column.

QC Batch 6107092

All QC criteria were met.

The following flags are used to qualify results for chlorinated dioxin and furan results:

J – The reported result is an estimate. The amount reported is below the Minimum Level (ML). The qualitative definition of the ML is "the lowest level at which the analytical system must give a reliable signal and an acceptable calibration point". The ML was introduced in EPA Methods 1624 and 1625 in 1980 and was promulgated in these methods in 1984 at 40 CFR Part 136, Appendix A. For the purposes of this report the ML is qualitatively defined as described above, and quantitatively defined as follows: **Minimum Level:** The concentration or mass of analyte in the sample that corresponds to the lowest calibration level in the initial calibration. It represents a concentration (in the sample extract) equivalent to that of the lowest calibration standard, after corrections for method-specified sample weights, volumes and cleanup procedures has been employed.

Example: The lowest calibration level for TCDD in the initial calibration is 0.5 pg/uL. A mass of 10 pg of 2,3,7,8-TCDD in the sample would result in a concentration of 0.5 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the lowest calibration standard, the 10 pg mass in the sample components is the ML. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example: A 1/10 dilution is performed on the sample extract described above. The ML for 2,3,7,8-TCDD becomes 100 pg rather than the default of 10 pg.

E – The reported result is an estimate. The amount reported is above the UCL described below.

The E qualifier is applied on the basis of the **Upper Calibration Level (UCL)**. The quantitative definition of the UCL is listed below:

Upper Calibration Level: The concentration or mass of analyte in the sample that corresponds to the highest calibration level in the initial calibration. It is

equivalent to the concentration of the highest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Example:

The maximum calibration level for TCDD in the initial calibration is 200 pg/uL. A mass of 4000 pg of 2,3,7,8-TCDD in the sampling components would result in a concentration of 200 pg/uL in the sample extract (at a final volume of 20 uL). Since the concentration in the sample extract corresponds to the concentration in the highest calibration standard, the 4000 pg mass in the sample components is the UCL. If the sample extract is further diluted, the ML will increase by the dilution factor.

Example:

A 1/10 dilution is performed on the sample extract described above. The UCL for 2,3,7,8-TCDD becomes 40,000 pg rather than the default of 4000 pg. In this examples all positive 2,3,7,8-TCDD results above 40,000 pg are flagged with an E.

B – The analyte is present in the associated method blank at a reportable level. For this analysis, there is no method specified reporting level, other than the qualitative criterion that peaks must exhibit a signal-to-noise ratio of 2.5-to-1. Therefore, the presence of any amount of the analyte present in the blank will result a B qualifier on all associated samples.

If the blank has analytes present above the ML (described above) the need for corrective action beyond qualifying the associated data is evaluated. The determination is made whether the amount in the blank is less than 5% of the lowest amount in associated client samples or regulatory limit. If this is the case, sample processing may continue with the qualification of the data. If the amount in the blank is greater than 5% of the lowest amount in associated client samples or regulatory limit, corrective action must be taken.

The corrective actions may include extracting a second aliquot of sample if available, or notifying the client to assess the impact on the project objectives. Note: Some laboratories do not report contamination in the blank unless it is above their lower calibration limit, or an established percentage of the level in the

samples, or an established percentage of the regulatory limit. Likewise, some laboratories set a reporting limit at one half the lower calibration limit.

- **Q** Estimated maximum possible concentration. This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:
- Ion abundance ratios must be within specified limits (+/-15% of theoretical ion abundance ratio.)
- Retention time criteria (relative to the method-specified isotope labeled retention time standard).
- Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 seconds of each other.
- Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.
- S Ion suppression evident. The trace indicating the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.
- C Coeluting Isomer. The isomer is known to coelute with another member of its homologue group, or the peak shape is shouldered, indicating the likelihood of a coeluting isomer
- X Other. See explanation in narrative.

Sample Data Summary

Sample ID: G-2937/2938-R1-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 001

Bruce F. Wagner

Work Order #...: H2H1D1AA

AIR

Date Sampled:

03/28/06

Date Received:

04/02/06

Matrix....:

Prep Date:

04/17/06

Analysis Date:

05/04/06

Dilution Factor: 1

Prep Batch #: Initial Wgt/Vol: Analyst ID:

6107079 1 Sample

Instrument ID....: M2A

Method:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.5	pg/sampl
Total TCDD	4.0	QЈ	10	2.5	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.5	pg/sampl
Total PeCDD	8.2	QЈ	50	1,5	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	1.2	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	1.2	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	1.1	pg/sampl
Total HxCDD	6.3	QЈ	50	1.2	pg/sampl
1,2,3,4,6,7,8-HpCDD	6.7	J	50	2.2	pg/sampl
Total HpCDD	11	J	50	2.2	pg/sampl
OCDD	22	QBJ	100	2.0	pg/sampl
2,3,7,8-TCDF	2.4	QЛ	10	2,2	pg/sampl
Total TCDF	15	QJ	10	2.2	pg/sampl
1,2,3,7,8-PeCDF	3.3	QЈ	50	1.2	pg/sampl
2,3,4,7,8-PeCDF	2.9	QЈ	50	1.1	pg/sampl
Total PeCDF	29	JQ	50	1.2	pg/sampl
1,2,3,4,7,8-HxCDF	5.7	QЈ	50	1.1	pg/sampl
1,2,3,6,7,8-HxCDF	3.7	QJ	50	1.0	pg/sampl
2,3,4,6,7,8-HxCDF	2.7	ВЈ	50	1.1	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	1.2	pg/sampl
Total HxCDF	21	QJB	50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDF	8.0	QBJ	50	1.9	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND		50	2.3	pg/sampl
Total HpCDF	8.0	QBJ	50	2.1	pg/sampl
OCDF	8.5	QBJ	100	2.5	pg/sampl

Sample ID: G-2937/2938-R1-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 001	Work Order #:	H2H1D1AA	Matrix:	AIR
Date Sampled:	03/28/06	Date Received:	04/02/06	Dilution F	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/04/06		
Prep Batch #:	6107079				
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
Analyst ID:	Bruce F. Wagner				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	103	40 - 135
13C-1,2,3,7,8-PeCDD	120	40 - 135
13C-1,2,3,6,7,8-HxCDD	103	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	112	40 - 135
13C-OCDD	107	40 - 135
13C-2,3,7,8-TCDF	100	40 - 135
13C-1,2,3,7,8-PeCDF	120	40 - 135
13C-1,2,3,6,7,8-HxCDF	104	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	101	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
37Cl4-2,3,7,8-TCDD	88	70 - 130	
13C-1,2,3,4,7,8-HxCDD	101	70 - 130	
13C-2,3,4,7,8-PeCDF	90	70 - 130	
13C-1,2,3,4,7,8-HxCDF	85	70 - 130	
13C-1,2,3,4,7,8,9-HpCDF	90	70 - 130	

- Method blank contamination. The associated method blank contains the target analyte at a reportable level. В
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

Sample ID: G-2939/2940-R1-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 002

Work Order #....: H2H1F1AA

Matrix...: AIR

Date Sampled....:

03/28/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date....:

04/17/06

Analysis Date:

05/05/06

Prep Batch #:

6107092 1 Sample

Instrument ID....: M2A

Method:

SW846 0023A/8290

Initial Wgt/Vol: Analyst ID....:

Patricia(Trish) M. Parsly

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	19	Q	10	3.6	pg/sampl
Total TCDD	1700	Q	10	3.6	pg/sampl
1,2,3,7,8-PeCDD	33	J	50	1.3	pg/sampl
Total PeCDD	580	Q	50	1.3	pg/sampl
1,2,3,4,7,8-HxCDD	11	J	50	1.0	pg/sampl
1,2,3,6,7,8-HxCDD	9.6	J	50	1.0	pg/sampl
1,2,3,7,8,9-HxCDD	16	J	50	0.96	pg/sampl
Total HxCDD	160	Q	50	1.0	pg/sampl
1,2,3,4,6,7,8-HpCDD	24	ВЈ	50	1.0	pg/sampl
Total HpCDD	44	JB	50	1.0	pg/sampl
OCDD	27	ВЈ	100	1.2	pg/sampl
Total TCDF	6000	Q	10	5.5	pg/sampl
1,2,3,7,8-PeCDF	170	Q	50	1.6	pg/sampl
2,3,4,7,8-PeCDF	190		50	1.5	pg/sampl
Total PeCDF	2600	Q	50	1.6	pg/sampl
1,2,3,4,7,8-HxCDF	200	Q	50	1.1	pg/sampl
1,2,3,6,7,8-HxCDF	100		50	1.0	pg/sampl
2,3,4,6,7,8-HxCDF	47	вЈ	50	1.1	pg/sampl
1,2,3,7,8,9-HxCDF	5.5	ВJ	50	1.2	pg/sampl
Total HxCDF	830	Q B	50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDF	150	В	50	1.1	pg/sampl
1,2,3,4,7,8,9-HpCDF	10	QJ	50	1.3	pg/sampl
Total HpCDF	200	BQ	50	1.2	pg/sampl
OCDF	14	ВЈ	100	1.3	pg/sampl

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	92	40 - 135
13C-1,2,3,7,8-PeCDD	98	40 - 135
13C-1,2,3,6,7,8-HxCDD	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	102	40 - 135
13C-OCDD	95	40 - 135
13C-2,3,7,8-TCDF	89	40 - 135
13C-1,2,3,7,8-PeCDF	96	40 - 135
13C-1,2,3,6,7,8-HxCDF	98	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	90	40 - 135

Sample ID: G-2939/2940-R1-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 002	Work Order #:	H2H1F1AA	Matrix:	AIR
Date Sampled:	03/28/06	Date Received:	04/02/06	Dilution Fa	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/05/06	~11401011 11	1
Prep Batch #:	6107092				
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
Analyst ID:	Patricia(Trish) M. Parsly				2 0 .0 00231110230

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37C14-2,3,7,8-TCDD	83	70 - 130
13C-1,2,3,4,7,8-HxCDD	97	70 - 130
13C-2,3,4,7,8-PeCDF	91	70 - 130
13C-1,2,3,4,7,8-HxCDF	80	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	82	70 - 130

- В Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

Sample ID: G-2939/2940-R1-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 002

Work Order #....: H2H1F1AC

Matrix....: AIR

Date Sampled:

03/28/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date:

04/17/06

Analysis Date:

05/08/06

Prep Batch #: Initial Wgt/Vol:

6107092 1 Sample

Instrument ID:

M₃C

Method:

SW846 0023A/8290

Analyst ID:

Vanhseng (MO) Khounlavong

Confirmation Run

PARAMETER

RESULT

MINIMUM LEVEL

ESTIMATED

DETECTION LIMIT UNITS

2,3,7,8-TCDF

230 Q

10

4.1

pg/sampl

INTERNAL STANDARDS

13C-2,3,7,8-TCDF

PERCENT RECOVERY

97

RECOVERY LIMITS

40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Estimated maximum possible concentration (EMPC). Q

STL Knoxville - ACS Sample ID: G-3049/3050-R2-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 003

Bruce F. Wagner

Work Order #....: H2H1G1AA

Matrix...:

AIR

Date Sampled:

03/29/06

Date Received: 04/02/06

Prep Date:

04/17/06

Analysis Date...:

05/04/06

Dilution Factor: 1

Prep Batch #: Initial Wgt/Vol: Analyst ID....:

6107079 1 Sample

Instrument ID....: M2A

Method:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.1	pg/sampl
Total TCDD	ND		10	2.1	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.1	pg/sampl
Total PeCDD	1.3	QЈ	50	1.1	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	1.1	pg/sampl pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	1.1	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	1.0	pg/sampl
Total HxCDD	ND		50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDD	ND		50	1.2	pg/sampl
Total HpCDD	2.2	QJ	50	1.2	pg/sampl
OCDD	17	ВЈ	100	1.5	pg/sampl
2,3,7,8-TCDF	ND		10	1.7	pg/sampl
Total TCDF	ND		10	1.7	pg/sampl
1,2,3,7,8-PeCDF	ND		50	0.86	pg/sampl
2,3,4,7,8-PeCDF	ND		50	0.81	pg/sampl
Total PeCDF	0.80	QJ	50	0.83	pg/sampl
1,2,3,4,7,8-HxCDF	2.1	QJ	50	0.76	pg/sampl
1,2,3,6,7,8-HxCDF	1.6	QJ	50	0.70	pg/sampl
2,3,4,6,7,8-HxCDF	ND	-	50	0.79	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	0.85	pg/sampl
Total HxCDF	5.3	$\mathbf{J}\mathbf{Q}$	50	0,77	pg/sampl
1,2,3,4,6,7,8-HpCDF	3.7	QBJ	50	1.1	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND	_	50	1.3	pg/sampl
Total HpCDF	3.7	QBJ	50	1.2	pg/sampl
OCDF	4.5	QBJ	100	1.4	pg/sampl

Sample ID: G-3049/3050-R2-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 003	Work Order #:	H2H1G1AA	Matrix:	AIR
Date Sampled:	03/29/06	Date Received:	04/02/06	Dilution F	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/04/06		1
Prep Batch #:	6107079				
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
Analyst ID:	Bruce F. Wagner				~ o .o o o z z z z z z z z z z z z z z

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS		
13C-2,3,7,8-TCDD	103	40 - 135		
13C-1,2,3,7,8-PeCDD	122	40 - 135		
13C-1,2,3,6,7,8-HxCDD	101	40 - 135		
13C-1,2,3,4,6,7,8-HpCDD	110	40 - 135		
13C-OCDD	96	40 - 135		
13C-2,3,7,8-TCDF	96	40 - 135		
13C-1,2,3,7,8-PeCDF	116	40 - 135		
13C-1,2,3,6,7,8-HxCDF	101	40 - 135		
13C-1,2,3,4,6,7,8-HpCDF	99	40 - 135		

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37C14-2,3,7,8-TCDD	86	70 - 130
13C-1,2,3,4,7,8-HxCDD	102	70 - 130
13C-2,3,4,7,8-PeCDF	92	70 - 130
13C-1,2,3,4,7,8-HxCDF	86	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	91	70 - 130

- Method blank contamination. The associated method blank contains the target analyte at a reportable level. В
- Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

STL Knoxville - ACS Sample ID: G-3051/3052-R2-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 004

Work Order #....: H2H1J1AA

[1J1AA Matrix...:

AIR

Date Sampled....:
Prep Date....:

03/29/06 04/17/06 Date Received:

04/02/06

Dilution Factor: 1

Prep Batch #:

6107092

Analysis Date....: (

05/05/06

nution Pactor.

Initial Wgt/Vol:

1 Sample

Instrument ID....: M2A

[2A

Method: SW846 0023A/8290

Analyst ID....:

Patricia(Trish) M. Parsly

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	9.2	QJ	10		
Total TCDD	500	Q	10	2.8	pg/sampl
1,2,3,7,8-PeCDD	18	J		2.8	pg/sampl
Total PeCDD			50	1.4	pg/sampl
	250	Q	50	1.4	pg/sampl
1,2,3,4,7,8-HxCDD	8.2	J	50	1.1	pg/sampl
1,2,3,6,7,8-HxCDD	8.5	J	50	1.1	pg/sampl
1,2,3,7,8,9-HxCDD	13	J	50	1.0	pg/sampl
Total HxCDD	120	QЈ	50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDD	23	ВЈ	50	1.1	pg/sampl
Total HpCDD	42	JВ	50	1.1	pg/sampl
OCDD	24	ВЈ	100	1.1	pg/sampl
Total TCDF	3100	Q	10	3.9	pg/sampl
1,2,3,7,8-PeCDF	140		50	1.5	pg/sampl
2,3,4,7,8-PeCDF	150		50	1.4	pg/sampl
Total PeCDF	2000	Q	50	1.5	pg/sampl
1,2,3,4,7,8-HxCDF	190		50	0.97	pg/sampl
1,2,3,6,7,8-HxCDF	98		50	0.90	pg/sampl
2,3,4,6,7,8-HxCDF	47	ВJ	50	1.0	pg/sampl
1,2,3,7,8,9-HxCDF	6.0	QBJ	50	1.1	pg/sampl
Total HxCDF	830	ВQ	50	0.99	pg/sampl
1,2,3,4,6,7,8-HpCDF	160	В	50	1.2	pg/sampl
1,2,3,4,7,8,9-HpCDF	18	J	50	1.4	pg/sampl
Total HpCDF	230	В	50	1.3	pg/sampl
OCDF	23	ВЈ	100	1.3	pg/sampl
				***	he semili

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	95	40 - 135
13C-1,2,3,7,8-PeCDD	105	40 - 135
13C-1,2,3,6,7,8-HxCDD	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	108	40 - 135
13C-OCDD	97	40 - 135
13C-2,3,7,8-TCDF	91	40 - 135
13C-1,2,3,7,8-PeCDF	101	40 - 135
13C-1,2,3,6,7,8-HxCDF	97	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	91	40 - 135

Sample ID: G-3051/3052-R2-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 004	Work Order #:	H2H1J1AA	Matrix:	AIR
Date Sampled:	03/29/06	Date Received:	04/02/06	Dilution Fa	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/05/06		
Prep Batch #:	6107092				
Initial Wgt/Vol : Analyst ID:	1 Sample Patricia(Trish) M. Parsly	Instrument ID:	M2A	Method:	SW846 0023A/8290

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	84	70 - 130
13C-1,2,3,4,7,8-HxCDD	97	70 - 130
13C-2,3,4,7,8-PeCDF	92	70 - 130
13C-1,2,3,4,7,8-HxCDF	81	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	85	70 - 130

- В Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

Sample ID: G-3051/3052-R2-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 004

Work Order #....: H2H1J1AC

Matrix...: AIR

Date Sampled:

03/29/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date:

04/17/06

Analysis Date:

05/08/06

Prep Batch #:

6107092 1 Sample

Instrument ID....:

M₃C

Method:

SW846 0023A/8290

Initial Wgt/Vol: Analyst ID....:

Vanhseng (MO) Khounlavong

Confirmation Run

PARAMETER

RESULT

MINIMUM LEVEL

ESTIMATED

DETECTION LIMIT UNITS

2,3,7,8-TCDF

130 Q

10

3.5

pg/sampl

INTERNAL STANDARDS

13C-2,3,7,8-TCDF

PERCENT RECOVERY

RECOVERY LIMITS

40 - 135

Results and reporting limits have been adjusted for dry weight.

Estimated maximum possible concentration (EMPC).

STL Knoxville - ACS Sample ID: G-3128/3129-R3-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 005

Bruce F. Wagner

Work Order #....: H2H1K1AA

AIR

Date Sampled....:

03/30/06

Date Received:

04/02/06

Prep Date:

Analyst ID:

04/17/06

Analysis Date....: 05/04/06 Dilution Factor: 1

Prep Batch #: Initial Wgt/Vol:

6107079 1 Sample

Instrument ID....: M2A

Method:

Matrix...:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.9	pg/sampl
Total TCDD	ND		10	2.9	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.5	pg/sampl
Total PeCDD	ND		50	1.5	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	1.3	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	1.3	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	1.2	pg/sampl
Total HxCDD	ND		50	1.3	pg/sampl
1,2,3,4,6,7,8-HpCDD	2.2	J	50	1.4	pg/sampl
Total HpCDD	2.2	J	50	1.4	pg/sampl
OCDD	18	ВJ	100	1.7	pg/sampl
2,3,7,8-TCDF	ND		10	2.3	pg/samp1
Total TCDF	ND		10	2.3	pg/sampl
1,2,3,7,8-PeCDF	ND		50	1.2	pg/sampl
2,3,4,7,8-PeCDF	ND		50	1.1	pg/sampl
Total PeCDF	2.0	QЈ	50	1.2	pg/sampl
1,2,3,4,7,8-HxCDF	ND		50	0.92	pg/sampl
1,2,3,6,7,8-HxCDF	ND		50	0.85	pg/sampl
2,3,4,6,7,8-HxCDF	ND		50	0.96	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	1.0	pg/sampl
Total HxCDF	ND		50	0.93	pg/sampl
1,2,3,4,6,7,8-HpCDF	3.5	QBJ	50	1.4	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND		50	1.6	pg/sampl
Total HpCDF	3.5	QBJ	50	1.5	pg/sampl
OCDF	3.4	QBJ	100	1.3	pg/sampl

Sample ID: G-3128/3129-R3-M23A FRONT HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 005	Work Order #:	H2H1K1AA	Matrix:	AIR
Date Sampled:	03/30/06	Date Received:	04/02/06	Dilution Fa	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/04/06	2 Marion 1 .	1
Prep Batch #:	6107079	•			
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
1 1 1 7					0 11 0 10 0023120230

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS		
13C-2,3,7,8-TCDD	103	40 - 135		
13C-1,2,3,7,8-PeCDD	110	40 - 135		
13C-1,2,3,6,7,8-HxCDD	118	40 - 135		
13C-1,2,3,4,6,7,8-HpCDD	135	40 - 135		
13C-OCDD	122	40 - 135		
13C-2,3,7,8-TCDF	98	40 - 135		
13C-1,2,3,7,8-PeCDF	107	40 - 135		
13C-1,2,3,6,7,8-HxCDF	117	40 - 135		
13C-1,2,3,4,6,7,8-HpCDF	116	40 - 135		

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
37C14-2,3,7,8-TCDD	86	70 - 130	
13C-1,2,3,4,7,8-HxCDD	103	70 - 130	
13C-2,3,4,7,8-PeCDF	91	70 - 130	
13C-1,2,3,4,7,8-HxCDF	86	70 - 130	
13C-1,2,3,4,7,8,9-HpCDF	92	70 - 130	

QUALIFIERS

Analyst ID:

Results and reporting limits have been adjusted for dry weight.

Bruce F. Wagner

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

STL Knoxville - ACS Sample ID: G-3130/3131-R3-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 006

Work Order #....: H2H1L1AA

Matrix...: AIR

Date Sampled:

03/30/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date....: Prep Batch #: 04/17/06

Analysis Date....:

05/05/06

Initial Wgt/Vol: Analyst ID....:

6107092 1 Sample Bruce F. Wagner

Instrument ID....: M2A

Method:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	12	Q	10	2.7	pg/sampl
Total TCDD	410	Q	10	2.7	pg/sampl
1,2,3,7,8-PeCDD	22	Ĵ	50	1.3	pg/sampl
Total PeCDD	250	Q	50	1.3	pg/sampl
1,2,3,4,7,8-HxCDD	7.3	QJ	50	1.0	pg/sampl
1,2,3,6,7,8-HxCDD	9.7	QJ	50	1.0	pg/sampl
1,2,3,7,8,9-HxCDD	16	J	50	0.95	pg/sampl
Total HxCDD	130	QJ	50	1.0	pg/sampl
1,2,3,4,6,7,8-HpCDD	26	ВЈ	50	1.4	pg/sampl
Total HpCDD	50	JB	50	1.4	
OCDD	26	ВЈ	100	0.91	pg/sampl
Total TCDF	4000	Q	10	4.4	pg/sampl
1,2,3,7,8-PeCDF	190	~	50	1.5	pg/sampl
2,3,4,7,8-PeCDF	180		50		pg/sampl
Total PeCDF	2600		50	1.4	pg/sampl
1,2,3,4,7,8-HxCDF	230		50	1.5	pg/sampl
1,2,3,6,7,8-HxCDF	130		50	0.97	pg/sampl
2,3,4,6,7,8-HxCDF	56	В	50	0.90	pg/sampl
1,2,3,7,8,9-HxCDF	8.4	Б ВJ		1.0	pg/sampl
Total HxCDF	3. 4 1100	в В	50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDF			50	0.99	pg/sampl
	190	В	50	1.1	pg/sampl
1,2,3,4,7,8,9-HpCDF	21	J	50	1.3	pg/sampl
Total HpCDF	280	В	50	1.2	pg/sampl
OCDF	22	ВЈ	100	1.1	pg/sampl

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	40 - 135
13C-1,2,3,7,8-PeCDD	102	40 - 135
13C-1,2,3,6,7,8-HxCDD	91	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	97	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	86	40 - 135
13C-1,2,3,7,8-PeCDF	98	40 - 135
13C-1,2,3,6,7,8-HxCDF	94	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	86	40 - 135

Sample ID: G-3130/3131-R3-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 006	Work Order #:	H2H1L1AA	Matrix:	AIR
Date Sampled:	03/30/06	Date Received:	04/02/06	Dilution F	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/05/06		1
Prep Batch #:	6107092				
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
Analyst ID:	Bruce F. Wagner				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	87	70 - 130
13C-1,2,3,4,7,8-HxCDD	101	70 - 130
13C-2,3,4,7,8-PeCDF	96	70 - 130
13C-1,2,3,4,7,8-HxCDF	82	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	84	70 - 130

- В Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

Sample ID: G-3130/3131-R3-M23A BACK HALF COMPOSITE TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 006

Work Order #....:

H2H1L1AC

Matrix....: AIR

Date Sampled ...:

03/30/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date:

04/17/06

Analysis Date:

05/08/06

Prep Batch #: Initial Wgt/Vol:

6107092 1 Sample

Instrument ID....: M3C

Method:

SW846 0023A/8290

Analyst ID:

Vanhseng (MO) Khounlavong

Confirmation Run

PARAMETER

RESULT

MINIMUM LEVEL

ESTIMATED

DETECTION LIMIT UNITS

2,3,7,8-TCDF

160 Q

10

4.0

pg/sampl

INTERNAL STANDARDS

13C-2,3,7,8-TCDF

PERCENT RECOVERY 94

RECOVERY LIMITS

40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Q Estimated maximum possible concentration (EMPC).

STL Knoxville - ACS Sample ID: G-3132/3133-R3-M23A FRONT HALF COMPOSITE BLANK TRAIN D Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 007

Work Order #....: H2H1N1AA

Matrix...:

AIR

Date Sampled:

03/30/06 04/17/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date: Prep Batch #:

6107079

Analysis Date....:

05/04/06

Initial Wgt/Vol: Analyst ID....:

1 Sample Patricia(Trish) M. Parsly

Instrument ID...: M2A

Method:

PARAMETER	RESULT	ı	MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.0	pg/sampl
Total TCDD	ND		10	2.0	pg/sampl
1,2,3,7,8-PeCDD	ND		50	0.91	pg/sampl
Total PeCDD	ND		50	0.91	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	1.1	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	1.1	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	1.0	pg/sampl
Total HxCDD	ND		50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDD	ND		50	1.4	pg/sampl
Total HpCDD	ND		50	1.4	pg/sampl
OCDD	20	ВЈ	100	1.6	pg/sampl
2,3,7,8-TCDF	ND		10	1.4	pg/sampl
Total TCDF	ND		10	1.4	pg/sampl
1,2,3,7,8-PeCDF	ND		50	0.68	pg/sampl
2,3,4,7,8-PeCDF	ND		50	0.63	pg/sampl
Total PeCDF	ND		50	0.65	pg/sampl
1,2,3,4,7,8-HxCDF	ND		50	0.55	pg/sampl
1,2,3,6,7,8-HxCDF	ND		50	0.51	pg/sampl
2,3,4,6,7,8-HxCDF	ND		50	0.58	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	0.62	pg/sampl
Total HxCDF	ND		50	0.56	pg/sampl
1,2,3,4,6,7,8-HpCDF	ND		50	1.1	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND ·		50	1.3	pg/sampl
Total HpCDF	ND		50	1.2	pg/sampl
OCDF	2.4	QBJ	100	1.7	pg/sampl

Sample ID: G-3132/3133-R3-M23A FRONT HALF COMPOSITE BLANK TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 007	Work Order #:	H2H1N1AA	Matrix:	AIR
Date Sampled:	03/30/06	Date Received:	04/02/06	Dilution Fa	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/04/06		1
Prep Batch #:	6107079	•			
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
4 T (YY)	- · · · · · · · · · · · · · · · · · · ·				~

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	94	40 - 135
13C-1,2,3,7,8-PeCDD	113	40 - 135
13C-1,2,3,6,7,8-HxCDD	109	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	113	40 - 135
13C-OCDD	88	40 - 135
13C-2,3,7,8-TCDF	95	40 - 135
13C-1,2,3,7,8-PeCDF	107	40 - 135
13C-1,2,3,6,7,8-HxCDF	134	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	97	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37C14-2,3,7,8-TCDD	85	70 - 130
13C-1,2,3,4,7,8-HxCDD	97	70 - 130
13C-2,3,4,7,8-PeCDF	89	70 - 130
13C-1,2,3,4,7,8-HxCDF	80	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	75	70 - 130

Analyst ID....:

QUALIFIERSResults and reporting limits have been adjusted for dry weight.

Patricia(Trish) M. Parsly

- Method blank contamination. The associated method blank contains the target analyte at a reportable level. В
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

40 - 135

STL Knoxville - ACS Sample ID: G-3134/3135-R3-M23A BACK HALF COMPOSITE BLANK TRAIN D

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 008

Work Order #....:

H2H1P1AA

Matrix...: **AIR**

Date Sampled:

03/30/06 04/17/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date:

Analyst ID:

Analysis Date:

05/05/06

Method: SW846 0023A/8290

Prep Batch #: 6107092 Initial Wgt/Vol:

1 Sample Patricia(Trish) M. Parsly

Instrument ID:

M2A

MINIMUM ESTIMATED PARAMETER RESULT LEVEL **DETECTION LIMIT UNITS** 2,3,7,8-TCDD ND 10 1.9 pg/sampl Total TCDD ND 10 1.9 pg/sampl 1,2,3,7,8-PeCDD ND 50 0.78 pg/sampl Total PeCDD ND 50 0.78 pg/sampl 1,2,3,4,7,8-HxCDD ND 50 0.65 pg/sampl 1,2,3,6,7,8-HxCDD ND 50 0.64 pg/sampl 1,2,3,7,8,9-HxCDD ND 50 0.59 pg/sampl Total HxCDD ND 50 0.63 pg/sampl 1,2,3,4,6,7,8-HpCDD ND 50 0.76 pg/sampl Total HpCDD ND 50 0.76 pg/sampl OCDD 7.0 BJ100 0.68 pg/sampl 2,3,7,8-TCDF ND 10 1.4 pg/sampl Total TCDF ND 10 1.4 pg/sampl 1,2,3,7,8-PeCDF ND 50 0.67 pg/sampl 2,3,4,7,8-PeCDF ND 50 0.63 pg/sampl Total PeCDF ND 50 0.65 pg/sampl 1,2,3,4,7,8-HxCDF ND 50 0.48 pg/sampl 1,2,3,6,7,8-HxCDF ND 50 0.44 pg/sampl 2,3,4,6,7,8-HxCDF ND 50 0.50 pg/sampl 1,2,3,7,8,9-HxCDF ND 50 0.53 pg/sampl Total HxCDF ND 50 0.49 pg/sampl 1,2,3,4,6,7,8-HpCDF ND 50 0.53 pg/sampl 1,2,3,4,7,8,9-HpCDF ND 50 0.62 pg/sampl Total HpCDF ND 50 0.57 pg/sampl **OCDF** ND 100 0.92 pg/sampl

Sample ID: G-3134/3135-R3-M23A BACK HALF COMPOSITE BLANK TRAIN D

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 008	Work Order #:	H2H1P1AA	Matrix: AIR
Date Sampled:	03/30/06	Date Received:	04/02/06	Dilution Factor: 1
Prep Date:	04/17/06	Analysis Date:	05/05/06	2 Mation 1 actor: 1
Prep Batch #:	6107092	•		
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method: SW846 0023A/8290

Analyst ID: Patricia(Trish) M. Parsly

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	40 - 135
13C-1,2,3,7,8-PeCDD	101	40 - 135
13C-1,2,3,6,7,8-HxCDD	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	102	40 - 135
13C-OCDD	97	40 - 135
13C-2,3,7,8-TCDF	85	40 - 135
13C-1,2,3,7,8-PeCDF	97	40 - 135
13C-1,2,3,6,7,8-HxCDF	91	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37C14-2,3,7,8-TCDD	83	70 - 130
13C-1,2,3,4,7,8-HxCDD	97	70 - 130
13C-2,3,4,7,8-PeCDF	93	70 - 130
13C-1,2,3,4,7,8-HxCDF	81	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	82	70 - 130

Method blank contamination. The associated method blank contains the target analyte at a reportable level. В

J Estimated Result.

STL Knoxville - ACS Sample ID: G-3136-R3-M23A TRAIN D XAD-2 RESIN TUBE TB/RB

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 009

Patricia(Trish) M. Parsly

Work Order #....: H2H1Q1AA

Matrix...:

AIR

Date Sampled:

03/30/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date:

Analyst ID:

04/17/06

Analysis Date:

05/05/06

Prep Batch # ...: Initial Wgt/Vol:

6107092 1 Sample

Instrument ID....:

M2A

Method:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.2	pg/sampl
Total TCDD	ND		10	2.2	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.0	pg/sampl
Total PeCDD	ND		50	1.0	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	0.98	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	0.97	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	0.89	pg/sampl
Total HxCDD	1.4	J	50	0.95	pg/sampl
1,2,3,4,6,7,8-HpCDD	ND		50	0.98	pg/sampl
Total HpCDD	ND		50	0.98	pg/sampl
OCDD	6.5	ВЈ	100	1.0	pg/sampl
2,3,7,8-TCDF	ND		10	1.9	pg/sampl
Total TCDF	ND		10	1.9	pg/sampl
1,2,3,7,8-PeCDF	ND		50	0.79	pg/sampl
2,3,4,7,8-PeCDF	ND		50	0.74	pg/sampl
Total PeCDF	ND		50	0.77	pg/sampl
1,2,3,4,7,8-HxCDF	ND		50	0.54	pg/sampl
1,2,3,6,7,8-HxCDF	ND		50	0.50	pg/sampl
2,3,4,6,7,8-HxCDF	ND		50	0.57	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	0.61	pg/sampl
Total HxCDF	ND		50	0.55	pg/sampl
1,2,3,4,6,7,8-HpCDF	ND		50	0.80	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND		50	0.94	pg/sampl
Total HpCDF	ND		50	0.86	pg/sampl
OCDF	ND		100	1.2	pg/sampl

STL Knoxville - ACS Sample ID: G-3136-R3-M23A TRAIN D XAD-2 RESIN TUBE TB/RB

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 009	Work Order #:	H2H1Q1AA	Matrix:	AIR
Date Sampled:	03/30/06	Date Received:	04/02/06	Dilution Fa	actor: 1
Prep Date:	04/17/06	Analysis Date:	05/05/06	2 Mation 40	1
Prep Batch #:	6107092	-			
Initial Wgt/Vol:	1 Sample	Instrument ID:	M2A	Method:	SW846 0023A/8290
Analyst ID:	Patricia(Trish) M. Parsly				

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	95	40 - 135
13C-1,2,3,7,8-PeCDD	109	40 - 135
13C-1,2,3,6,7,8-HxCDD	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	109	40 - 135
13C-OCDD	112	40 - 135
13C-2,3,7,8-TCDF	86	40 - 135
13C-1,2,3,7,8-PeCDF	100	40 - 135
13C-1,2,3,6,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	94	40 - 135

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
37Cl4-2,3,7,8-TCDD	83	70 - 130
13C-1,2,3,4,7,8-HxCDD	100	70 - 130
13C-2,3,4,7,8-PeCDF	94	70 - 130
13C-1,2,3,4,7,8-HxCDF	80	70 - 130
13C-1,2,3,4,7,8,9-HpCDF	87	70 - 130

В Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated Result.

STL Knoxville - ACS Sample ID: A-5379 MEDIA CHECK XAD

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 010

Work Order #....: H2H1W1AA

AIR

Date Sampled:

03/28/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date....:

04/17/06

Analysis Date....:

05/04/06

Prep Batch #: Initial Wgt/Vol: Analyst ID....:

6107092 1 Sample Bruce F. Wagner

Instrument ID....: M2A

Method:

Matrix....:

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.3	pg/sampl
Total TCDD	ND		10	2.3	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.0	pg/sampl
Total PeCDD	ND		50	1.0	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	1.1	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	1.1	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	1.0	pg/sampl
Total HxCDD	ND		50	1.1	pg/sampl
1,2,3,4,6,7,8-HpCDD	ND		50	1.2	pg/sampl
Total HpCDD	ND		50	1.2	pg/sampl
OCDD	13	вЈ	100	1.3	pg/sampl
2,3,7,8-TCDF	ND		10	1.8	pg/sampl
Total TCDF	ND		10	1.8	pg/sampl
1,2,3,7,8-PeCDF	ND		50	0.77	pg/sampl
2,3,4,7,8-PeCDF	ND		50	0.72	pg/sampl
Total PeCDF	ND		50	0.75	pg/sampl
1,2,3,4,7,8-HxCDF	ND		50	0.74	pg/sampl
1,2,3,6,7,8-HxCDF	ND		50	0.69	pg/sampl
2,3,4,6,7,8-HxCDF	ND		50	0.77	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	0.83	pg/sampl
Total HxCDF	ND		50	0.75	pg/sampl
1,2,3,4,6,7,8-HpCDF	ND		50	0.79	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND		50	0.93	pg/sampl
Total HpCDF	ND		50	0.86	pg/sampl
OCDF	2.5	QBJ	100	1.4	pg/sampl

Sample ID: A-5379 MEDIA CHECK XAD

Trace Level Organic Compounds

Lot - Sample #:	H6D030236 - 010	Work Order #:	H2H1W1AA	Matrix:	AIR
Date Sampled:	03/28/06	Date Received:	04/02/06	Dilution F	actor• 1
Prep Date:	04/17/06	Analysis Date:	05/04/06		 1
Prep Batch #:	6107092				
Initial Wgt/Vol : Analyst ID:	1 Sample Bruce F. Wagner	Instrument ID:	M2A	Method:	SW846 0023A/8290

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	40 - 135
13C-1,2,3,7,8-PeCDD	95	40 - 135
13C-1,2,3,6,7,8-HxCDD	82	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	81	40 - 135
13C-2,3,7,8-TCDF	83	40 - 135
13C-1,2,3,7,8-PeCDF	91	40 - 135
13C-1,2,3,6,7,8-HxCDF	75	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	79	40 - 135

QUALIFIERS

- B Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).

STL Knoxville - ACS Sample ID: A-5381 MEDIA CHECK FILTER

Trace Level Organic Compounds

Lot - Sample #....:

H6D030236 - 011

Work Order #....: H2H1X1AA

Matrix...: AIR

Date Sampled:

03/28/06

Date Received:

04/02/06

Dilution Factor: 1

Prep Date....:

04/17/06

Analysis Date:

05/04/06

Prep Batch #:

6107079 1 Sample

Instrument ID....: M2A

Method:

SW846 0023A/8290

Initial Wgt/Vol: Analyst ID: Patricia(Trish) M. Parsly

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	2.0	pg/sampl
Total TCDD	ND		10	2.0	pg/sampl
1,2,3,7,8-PeCDD	ND		50	1.1	pg/sampl
Total PeCDD	ND		50	1.1	pg/sampl
1,2,3,4,7,8-HxCDD	ND		50	0.78	pg/sampl
1,2,3,6,7,8-HxCDD	ND		50	0.78	pg/sampl
1,2,3,7,8,9-HxCDD	ND		50	0.71	pg/sampl
Total HxCDD	ND		50	0.76	pg/sampl
1,2,3,4,6,7,8-HpCDD	ND		50	1.1	pg/sampl
Total HpCDD	ND		50	1.1	pg/sampl
OCDD	16	ВЈ	100	1.2	pg/sampl
2,3,7,8-TCDF	ND		10	1.6	pg/sampl
Total TCDF	ND		10	1.6	pg/sampl
1,2,3,7,8-PeCDF	ND		50	0.80	pg/sampl
2,3,4,7,8-PeCDF	ND		50	0.75	pg/sampl
Total PeCDF	ND		50	0.78	pg/sampl
1,2,3,4,7,8-HxCDF	ND		50	0.60	pg/sampl
1,2,3,6,7,8-HxCDF	ND		50	0.56	pg/sampl
2,3,4,6,7,8-HxCDF	ND		50	0.63	pg/sampl
1,2,3,7,8,9-HxCDF	ND		50	0.67	pg/sampl
Total HxCDF	ND		50	0.61	pg/sampl
1,2,3,4,6,7,8-HpCDF	ND		50	0.76	pg/sampl
1,2,3,4,7,8,9-HpCDF	ND		50	0.89	pg/sampl
Total HpCDF	ND		50	0.82	pg/sampl
OCDF	2.8	QBJ	100	1.4	pg/sampl

Sample ID: A-5381 MEDIA CHECK FILTER

Trace Level Organic Compounds

Method:

SW846 0023A/8290

Lot - Sample #:	H6D030236 - 011	Work Order #:	H2H1X1AA	Matrix: AIR
Date Sampled:	03/28/06	Date Received:	04/02/06	Dilution Factor: 1
Prep Date:	04/17/06	Analysis Date:	05/04/06	2
Prep Batch #:	6107079	•		

Instrument ID....: M2A

Initial Wgt/Vol: 1 Sample Analyst ID....: Patricia(Trish) M. Parsly

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	101	40 - 135
13C-1,2,3,7,8-PeCDD	119	40 - 135
13C-1,2,3,6,7,8-HxCDD	96	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	108	40 - 135
13C-OCDD	94	40 - 135
13C-2,3,7,8-TCDF	96	40 - 135
13C-1,2,3,7,8-PeCDF	104	40 - 135
13C-1,2,3,6,7,8-HxCDF	84	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	94	40 - 135

- Method blank contamination. The associated method blank contains the target analyte at a reportable level. В
- J Estimated Result.
- Q Estimated maximum possible concentration (EMPC).